NUMB. XXXI.

The Universal Instructor in all Arts and Sciences:

AND

PENNSYLVANIA GAZETTE

To be continued Weekly. *The 31st of the 5th Month*, 1729.

AIR

THE same excellent Person further assures us, he procured a really elastick Substance from divers other Matters; as Bread, Grapes, Must, Ale, Apples, Peas, Beef, *&c.* and from some Bodies by only burning 'em in *vacuo*, particularly Paper, Harts-horn, *&c.* which yet, upon farther Examination, was so far from being pure *Air*, that Animals inclosed in it, not only could not respire it without Harm; but even died sooner than in *vacuo*, where there was nothing like Air.

We may here add an Observation of the Members of the Royal Academy of Sciences at *Paris*, which imports, that the Property of Elasticity is so far from constituting *Air*, that Air is render'd more elastick by the Admixture of some other Matters along with it, than it is in its Purity. Thus from some Experiments of M. *de la Hire* at *Paris*, and of M. *Stancari* at *Boulogne*, M. *Fontenelle* assures us, that Air moisten'd with Water, is considerably more elastick, and expands further, than when pure. M. *de la Hire* even found the moist Air eight times more elastick than the dry.

But it must not be omitted, that Dr. *Jurin* explains the Experiments another Way, and endeavours to shew, that the Conclusion does not necessarily follow from 'em.

Thus much for Air consider'd in it self. But such Air, we have observ'd, no where exists in its Purity. That wherewith we are concern'd, and whose Properties and Effects are chiefly consider'd, is acknowledg'd by Mr. *Boyle* to be the most heterogeneous Body in the Universe: *Boerhave* even shews it to be an universal Chaos, or Colluvies of all the Kinds of created Bodies. Whatever Fire can volatilize is found in the Air; but there is no Body that can withstand the Force of Fire.

Hence, for Instance, the whole Fossil Kingdom must necessarily be found therein: For all of that Tribe, as Salts, Sulphurs, Stones, Metals, *&c.* are convertible into Fume, and thus capable of being render'd Part of the Air. Gold it self, the most fix'd of all natural Bodies, is found to adhere close to the Sulphur in Mines; and thus to be raised along with it.

All the Parts of the Animal Kingdom must also be in the Air: For, beside the copious Effluvia continually emitted from their Bodies, by the vital Heat, in the ordinary Course of Perspiration; by means whereof an Animal, in the Course of its Duration, impregnates the Air with many Times the Quantity of its own Body. Beside this, we find that any Animal when dead, being exposed to the Air, is in a little Time carried wholly off, Bones and all. So that the whole of what was before an Animal, whether a Man, an Ox, or the like, is now in the Air.

By the way, it may be noted what huge Swarms of the grosser excrementitious Matters of Animals must swim in the Air: At *Madrid*, we are assured, they have no Necessary Houses; and that they always make a Jakes of their Streets over-Night, yet does the Air imbibe the Filth as fast as 'tis laid; insomuch, that there is no Encrease of any fetid Smell.

3. As to Vegetables, nothing of that Class can be supposed wanting, since we know that all Vegetables by Putrefaction become volatile; even the earthy or vascular Part, in Time follows the rest.

Of all the Effluvia floating in this grand Ocean the Atmosphere, one of the principal are the Saline. These, Authors commonly conceive, as chiefly of the nitrous Kind; but there is no doubt but that there are of all the sorts Vitriolick, Aluminous, Sea-Salt, *&c.*

Mr. *Boyle* even observes, that there may be many compounded Kinds of Salts in the Air, which we have not on Earth, arising from different saline Spirits, fortuitously meeting and mixing together. Thus the Glass-Windows of antient Buildings are sometimes observ'd to be corroded, as if they had been Worm-eaten, tho' none of the Salts above-mention'd have the Faculty of corroding Glass.

The Sulphurs, too, must make a considerable Article in the Air, on Account of of those many Volcanoes, Grottoes, Caverns, and other Spiracles chiefly affording that Mineral, dispersed thro' the Globe.

And the Associations, Separations, Attritions, Dissolutions, and other Operations of one Sort of Matter upon another, may be consider'd as a Source of numerous other neutral or anonymous Bodies, unknown to us.

Air, in this general Sense, is one of the most considerable and universal Agents in all Nature, being concern'd in the Production of most of the Phænomena relating to our World. Its Properties and Effects, including a great Part of the

the Reſearches and Diſcoveries of the modern Philoſophers, have ſome of 'em been reduced to preciſe Laws and Demonſtrations; in which form they make a Branch of Mathematicks, called *Pneumaticks*, or *Aerometry*.

The Dialogue continued.

Will. *Indeed, Sir, and't pleaſe you, the Gentlemen do not think much of Religion; I fear it was always ſo; the Scripture ſays,* Not many rich, not many Noble, are called; *and* it is the Poor of this World that are rich in Faith, James ii. 5.

Landl. I *find it ſo indeed,* William, *and* I *find my ſelf at a dreadful Loſs in this very thing. I am convinc'd, the Happineſs of Man does not conſiſt in the Eſtate, Pleaſures and Enjoyments of Life; if ſo, the Poor alone would be miſerable, and the rich Men only be bleſſed; but there is ſomething beyond this World, which makes up for all that is deficient here: This* you *have, and I have not; and ſo,* William, you *in* your *poor Cottage are richer, and more happy than I am, with the whole Manor.*

Will. *Indeed, Sir, If in this World only we had Hope, the Poor would be of all Men the moſt miſerable; bleſſed be the Lord, that our Portion is not in this Life. But, Sir,* I *hope you will not diſcourage your ſelf neither; for God has not choſen the Poor only, rich Men have Temptations from the World, and Hindrances very many, and it is hard for them to enter into the Kingdom of Heaven; but they are not ſhut out, the Gate is not barr'd upon them becauſe they are rich.*

Land. I *know not how it is,* William, *nor which way to begin; but* I *ſee ſo many Obſtructions in the Work, that* I *doubt* I *ſhall never get over it.*

Will. *Do not ſay ſo,* I *beſeech* you, *Sir, the Promiſe is made to all; and if God has given you a Heart to ſeek him, he will meet you and bleſs* you, *for he has ſaid,* their Hearts ſhall live that ſeek the Lord: *There have been great and rich Men good Men; we read of good Kings and good Princes; and if* your *Difficulties are great,* you *have great Encouragements; for* you *that are great Men, have great Opportunities to honour God, and do good to his Church; poor Men are denied theſe Encouragements; we can only ſit ſtill and be patient under the Weight of our Sorrows, and our Poverty, and look for his Bleſſing, which alone makes rich, and adds no Sorrow to it.*

Landl. *But tell me,* William, *what is the firſt Step ſuch a poor uneducated Thing as* I *am ſhould take? I ſee a Beauty in Religion, which* I *cannot reach; I ſee the Happineſs which thou enjoyeſt,* William, *in an humble, religious, correct Life; I would give all my Eſtate to be in thy Condition; I would labour at the Hedge and the Ditch, as thou doſt, could* I *have the ſame Peace within, and be as thankful, and have ſuch an entire Confidence in God as thou haſt; I ſee the Happineſs of it, but not nothing of the Way how to obtain it.*

Will. *Alas! Sir,* you *do not know my Condition; I am a poor diſconſolate Creature; I am ſometimes ſo loſt, ſo dark, ſo overwhelm'd with my Condition, and with my Diſtreſſes, that* I *am tempted to fear God* has forgotten to be gracious; *that* I *am caſt off, and left to ſink under my own Burden: I am ſo unworthy, ſo forgetful of my Duty, ſo eaſily let go my Hold, and caſt off my Confidence, that* I *fear often I ſhall deſpair.*

La. *And what do* you *then,* William?

Will. *Alas! Sir,* I *go mourning many a Day, and waking many a Night; but* I *bleſs the Lord,* I *always mourn after him;* I *always cleave to him;* I *am not tempted to run from him;* I *know* I *am undone, if* I *ſeek Comfort in any other: Alas, whither elſe ſhould* I *go!* I *cry Night and Day,* Return, return, O Father! *and reſolve to lie at his Foot, and that if he ſlay me, yet* I *will truſt in him; and bleſſed be the God of my Hope, he does ſend Comfort and Peace, tho' ſometimes it is very long.*

Landl. *Well,* William; *and is this a diſconſolate Condition! would you change your Condition with me that am the rich Glutton?*

Will. *O do not ſay ſo of your ſelf, God has touch'd your Worſhip's Heart,* I *perceive with an earneſt Deſire after him; you have a gracious Promiſe, that would greatly encourage you, if you would but take it to your ſelf.*

Landl. *Encourage me,* William! *That's impoſſible, I think, what can encourage me? What Promiſe is it you talk of, that look towards me?*

Will. *Why, I heard you ſay, you would change your Condition with ſuch a poor Wretch as I;* you would labour at the Hedge and the Ditch, to have the Knowledge of God and Religion, and to be able to be thankful to him, and have Confidence in him: *This implies, that you have a longing earneſt Deſire after him, and after the Knowledge of his Truth.*

Landl. *Indeed that is true,* William.

Will. *Then there are many comforting Scriptures, which ſpeak directly to you, Sir,* Bleſſed are they that hunger and thirſt after Righteouſneſs, for they ſhall be filled: The longing Soul ſhall be ſatisfy'd: *He will* ſatisfy the Deſires of all thoſe that fear him, and the like.

Landl. *But what muſt* I *do? which is the Way, an ignorant Wretch muſt take?*

Will. *The Way is plain: We muſt pray to him; Prayer is the firſt Duty, and Prayer is the greateſt Privilege we can enjoy in the World.*

Landl. *Ay,* William; *but there is a great deal required in Prayer, that I am an utter Stranger to:* I *never pray'd in my Life; no, nor I believe my Father or Grandfather before me,* William! *I came of a curſed Race,* William; *and* I *doubt 'tis entail'd upon the Family like the Eſtate.*

Will. *O Sir, do not ſay that: The Scripture is plain, that the Children ſhall not be puniſhed for the Father's Tranſgreſſions.*

Landl. *But then certainly they muſt not tread in their Fathers Steps, as I do exactly,* William?

Will. *That's true indeed, Sir, they muſt not tread in thoſe Steps.*

FOREIGN AFFAIRS.

Lisbon, April 14. *The Trade of this Kingdom has never been in ſo flouriſhing a Condition as it is at preſent, which is ſolely aſcribed to the profound Tranquility we enjoy, and to the Mildneſs of the Government,*

ment; which has nothing so much at Heart as to contribute to the Welfare and Prosperity of the People: And it is assured that the King has resolved not to intermeddle in the Differences of the Potentates of Europe.

Barcelona, April 17. *N. S.* Vice Admiral Cavendish with the Canterbury, Romney and Dover, 3 British Men were at Anchor two Days in this Port, but being denied Admittance, (and even Water) or Refreshments, they sailed again for Port Mahon. They came from Gibraltar, and before they came hither, had called at Malaga and at Alicant, where they were treated in like Manner.

Stockholm, April 20. The K[illegible] hath wrote to the Protestants of Poland, acq[illegible]ing them that he hath their Concerns very much at Heart, and that he would use all possible Means for preserving their Privileges, and the free Exercise of Religion, according to the Treaty of Oliva, and other Conventions made with the Crown of Poland. We are assured also, that the Prussian Minister at this Court, is charg'd among other Things, with a Commission in Favour of the said oppressed Protestants; and that other Powers have likewise given Assurances to this Court, that they would give Orders to their Ministers to press earnestly these Affairs at the approaching General Dyet of Poland.

Lisbon, April 27. N. S. Four Days ago arrived here the Genoa, Capt. Combs, from Mazagam, a fortify'd Town on the Coast of South-Barbary, belonging to this Kingdom: She brought our Ambassador and 110 Captives which he had redeemed at Mequinez, of the late Emperor Muley Hamet Deby. Before this Ship came in, Capt. Combs order'd his Gunner to make ready her Guns, in Order to compliment the Ambassador at his Landing; but he unfortunately left the Shot in one Gun, which when 'twas discharged, took off a young Student's Legs, and broke a Fryar's, and by Splinters several were wounded who were in a Boat. The Student died next Morning, but the Fryar and rest are like to do well.

Paris, May 2. It is advised from Compiegne, that several Conferences had been held at the Court there, with the Ministers of the Allies of Hanover, touching the last Dispatches from Spain; and it is said the Courier who brought them, is to be sent back to Seville this Day or to Morrow, and that the Duke de Bournonville will return hither suddenly, with necessary Instructions, for renewing the Congress for a General Peace, and bringing the same to a speedy and good Issue.

Soissons, May 5. Altho' all the Plenipotentiaries were not arrived here on Sunday Evening, yet on Monday Morning was held a Conferencce at the usual Hour in the Castle between the following Plenipotentiaries, viz. Baron Fonseca, on the Part of the Emperor; Count Brancas Cereste, for France; Count Golofkin, for Russia; Baron Giedda, for Sweden; Messieurs Goslinga & Hurgrogne, for the States General, and Baron Francken, for the Elector Palatine; there were none for Great Britain nor Spain. The Conferences lasted not long, but 'tis believed will be renewed as soon as the Court of Spain shall declare it self in regard to certain Propositions made on the Part of Great Britain.

Amsterdam, May 10. They write from Vienna, of the 27th past, that several Days before that Date, Conferences had been held at Prince Eugene's, chiefly upon the Affairs of Turkey, the Advices from whence confirm the Military Preparations of the Ottomans on the Side of Poland and Russia, and even on the Frontiers of Hungary, which makes it feared their Design is to attack some Christian Powers; tho' some Advices import, that the Prime Vizier had declared to the Foreign Ministers, that the Porte was resolved to live in Peace with its Neighbours. However the utmost Cautions were taken to prevent a Surprize, and repeated Orders were sent, to work without Delay on the Fortifications of the Frontier Places, and all the Officers were to go instantly to their Regiments.

Malta, April 9. The Knights of the Order repair from all Parts to this Island, where we are getting ready for a vigorous Defence, in case the Turks should attack us. We are well stored with Ammunition and Provisions, and have a sufficient Number of Troops to dispute the Ground Inch by Inch. As we are apprehensive that the Turks will make a Descent in the Island, three small Camps of 1000 Men each, have been lately formed, one at Gozzo, another at Massasceroco, and the third at Calle de San Faolo. A trusty Person who was sent to Constantinople, to observe what the Infidels were doing, is return'd and reports, that their Armaments consist of 60 Men of War, as many Gallies, a great Number of Transports, and 300, 000 Men of regular Troops, including the Auxiliaries of Tripoli, Algiers, and Tunis, who have Orders to be ready to march on the first Command.

London, April 26.

Capt. Wilson in the Ship Pheasant, who was taken by the Spaniards on the 13th of January last, in her Voyage from Barbadoes to South-Carolina, and carried into Porto Rico, is arrived in Town, and we hear he has been directed to give in a particular Account of his Misfortune on Oath, at the Secretary's Office, in Order to its being represented abroad in a proper Manner, for obtaining Satisfaction. When the said Captain came from Porto Rico, 11 Vessels, belonging to that Island, were at Sea, cruising on the English, (one of which carried 12 Guns and 12 Pattereros) and three more were then ready to put to Sea on the same Account.

Philadelphia.

We have Advice by a private Hand, that the Sloop Hope, bound from St. Christophers, to Cape Francois, was taken by the Spaniards, the 2d of April last, and all her Men excepting one put on Shore on Santa Cruz. And that about the Beginning of May, two Spanish Privateers

vateers landed their Men on the Iſland St. Johns, and took away near 200 Negroes.

By private Letters from London, we have Advice, That the King is ſet out for Hanover.

Among the various Schemes for a Paper-Currency to be ſtruck, in Maryland, the following is recommended in their Gazette, as leaſt injurious to the pooreſt Sort of People, and of beſt Advantage to all ſorts of undeſigning Men, *viz.* That a Paper-Currency be ſtruck, amounting to Ten Shillings, at leaſt, for every taxable Perſon in Maryland, at the publick Charge; That it be delivered to the Sheriff (or whom the Legiſlature ſhall appoint) of every County, to be diſtributed to every Perſon charged with Taxables, viz. Ten Shillings for every Taxable he is ſo charged with, upon giving Bond with ſufficient Security, (which Bonds may be printed and ſent to the Diſtributers at the publick Charge) to reimburſe to the Publick, one Shilling Yearly for every Ten Shillings received, for and during the Time and Term of eleven or twelve Years to come, either in Silver or Gold, or in the ſame Paper-Currency, at the Election of the Debtor; in which Time, the whole Sum of Paper-Currency will be ſunk, and there will be in the Hands of the publick Ten or Twenty per Cent. to defray the Charge of taking it in; which, in the Author's Opinion, will be a ſufficient Compenſation.

Extract of a Letter from a Gentleman in London *to his Friend in* New-York. Dated *Apr.* 26.

S I R,

I Think my laſt was of the 19th. I am now to tell you, that Governor *Burnet*'s Affair was brought before the Committee of Council on the 22d Inſtant, when on Mr. *Belcher*'s Petition, the Council for the Repreſentatives were heard, and the Attorney and Solicitor were ordered to defend Governor *Burnet*. The Repreſentatives Council would have been at urging Matters againſt Governor *Burnet*'s Conduct, as the long keeping them ſitting, the removing them to *Salem*, the raiſing Money by illegal Means, ſuch as Let-Paſſes, *&c.* But the Lords of the Committee told them, That when thoſe Matters came before the King in a Complaint, they might be heard, but at preſent would ſuffer them to go only on the Point of their Refuſal of a Salary. The Council being heard on both ſides, the Lords ordered a Report to be drawn to the King, in the ſtrongeſt Terms, adding, That altho' ſome thought it might be proper forthwith to lay the Matter before the Parliament, yet they believed, that as it was judged expedient to ſoften the Matter, by only requiring the People of *New-England* to ſettle a fixt Salary on Governor *Burnet*, during his Government, that thereby they might have one Opportunity more offered them of avoiding the ill Conſequences of their Obſtinacy, by a Complyance, and in caſe they do not manifeſt the ſame ſpeedily, then the Lords of the Committee do adviſe his Majeſty to lay the Matter before the Parliament in the Beginning of the next Seſſion. This Report was agreed to, this very Day, by the Lords of the Committee, and will be laid before the King in Council on Tueſday or Wedneſday next, and Copies thereof ſent to Governor *Burnet*, ſigned by the Clerk of the Council: At the ſame Time the Duke of Newcaſtle and the Board of Trade will write to Governor *Burnet* upon this Head. I forgot to tell you, that the Lords conclude their Report with Expreſſions very highly to Governor *Burnet*'s Honour. In ſhort, if the Repreſentatives of *New-England* reſolve to perſiſt, I am very much afraid, by the Spirit now raiſed againſt them, that nothing leſs than the Repeal of their Charter may be the Reſult. This is always the curſed Effect of Mens graſping at too much, that they loſe even all that they have.

Entred Inwards.

Sloop *Hunter*, *Criſpin Hill* from St. *Chriſtophers.*
--- *Dolphin*, *Elias Cotting* from *Boſton.*
Ship *Diligence*, *James Bayley* from *Newcaſtle.*
--- *Proſperity*, *Robert Hamilton*, from *Carrickfargus.*
Snow *Drogheda*, *John Marſar*, from *Drogheda.*

Entred Outwards.

Sloop *Anne*, *Barthol. Voke*, for *Curaco.*
--- *Elias Cotting*, to *Boſton.*
--- *Expedition*, *George King* to Jamaica.

Cleared.

Brig. *Hopewel*, *Stephen Haven* to *South Carolina.*

Juſt Publiſhed,

A Memorable Account of the Chriſtian Experiences and Living Teſtimonies of that Faithful Servant of Chriſt, *Edward Perry*, in his Writings herein collected. The Second Edition. Price One Shilling.

ALL Perſons indepted to *Samuel Keimer*, are earneſtly deſired to ſend in or bring their ſeveral Payments, in Order to enable him to do ſpeedy Juſtice to his Creditors, and thereby prevent his having any additional Trouble.

VERY Good Uſquebaugh to be ſold by the Printer hereof, at Four Shillings *per* Quart, Bottles and all.

At the ſame place is ſold Gum-Arabick very cheap for ſake of ready Money.

PHILADELPHIA: *Printed by* Samuel Keimer, *where Subſcriptions are taken in for this Paper, at* Ten Shillings *a Year, and Advertiſements inſerted at* Three Shillings *each.*